Section 13
Description of Environmental Documents

13.1 Environmental Study in Compliance with Mexican Regulations

The environmental document prepared in compliance with Mexican regulations is based in the legislation of the state of Baja California, and was developed in accordance with the Guide to Develop Environmental Impact Assessments for Regional Plans and Programs (Hydraulic Sector). This guide was presented to the General Direction of Ecology (DGE) of the State of Baja California, which approved the use of the guide as the basis for the completion of the environmental documentation required for the master plan.

The Guide was conceived as a practical strategy to translate the concept of sustainability to specific actions at a local level, therefore it includes important components of sustainable development.

The environmental document consists of 12 chapters and appendices. The first chapter includes general project information about the project sponsor (CESPT) and on the agency and/or private entity responsible of the development of the environmental assessment.

Chapter II generally describes the master plan and provides a frame of reference for the plan or program that will be implemented, from the perspective of sustainable development, with a general overview of the impacts that the natural and socioeconomic context could suffer.

Chapter III describes the links of the plan to the planning processes and regulations applicable in the region. The objective of this chapter is to describe in detail the strategies to be implemented by CESPT, in order to secure that the development of the plan or program will take place as established by the current norms and planning regulations that may apply in the area of the plan or program.

Chapter IV provides a description of the regional environmental system and a brief analysis of the development trends in the region. The objective of this chapter is to describe and analyze, in a comprehensive way, the environmental system were the plan or program is embedded, including the ecologic, economic and social aspects within such environmental system.

Chapter V presents the environmental approach of the plan or program. Based upon a characterization and analysis of the system, this chapter describes the structure and function of the regional environmental system where the plan or program will be applied.

Additionally, after describing the components, resources or relevant and / or critical areas of the environmental system, we conduct an analysis of each of them, in order to determine potential impacts**.**

In Chapter VI, we conduct a comprehensive analysis of the alternatives of the plan. The objective of this chapter is to develop alternatives (options or groups of options), from which to short-list the most viable ones. The selection is done by considering the most relevant social, economic and ecological aspects; the most important environmental impacts, and the feasibility of their implementation. After the short list is developed, the document proceeds to the evaluation of the possible environmental impacts of recommended alternatives.

Chapter VII includes the identification, description, and evaluation of cumulative and synergetic environmental impacts in the regional environmental system.

Chapter VIII presents strategies to prevent and reduce cumulative and residual environmental impacts. This chapter presents the design and implementation program for the actions and policies that should be followed, in order to prevent, eliminate, reduce and / or mitigate negative impacts that the plan or program may have in each stage of its implementation.

In Chapter IX presents a regional environmental forecast based upon the environmental scenario obtained in Chapter VII and taking into account the mitigation measures described in Chapter VIII.

Chapter X generally establishes a follow up program, while Chapter XI describes the process of public participation that was followed during the development of the plan.

Based upon a comprehensive assessment of the plan or program, Chapter XII concludes with an analysis of the balance (impact-development) in which the benefits the plan -as well as its importance for the local, regional or national economy- are compared to its impacts to natural processes. With the previous evaluation, we proceed to conclude whether the plan or program is environmentally viable or if the potential environmental impacts are considered unacceptable.

Findings of Mexican environmental document

Diversifying water sources represents a step towards sustainable development in the region and a reduction in the risk of lack of water supply for the population of the service area. The selected alternatives, in addition to the use of the traditional water source that the Colorado River represents, incorporate desalination and wastewater reuse. Wastewater reuse could also contribute to the recharge and sustainable management of the aquifers.

The expansion of the wastewater collection system to new areas and the rehabilitation and replacement of lines will contribute to the reduction of soil and subsurface pollution due to current wastewater discharges.

Similarly, the projects proposed by the plan will help in the prevention of aquifer contamination, while the extension of service coverage to 100 percent will result in public health and quality of life benefits to the population in the service area.

Wastewater treatment for 100 percent of the flows in the collection system, coupled with the increased level of treatment, will significantly reduce ocean water and groundwater pollution.

The re-injection to the aquifers of highly treated wastewater represents a means of protecting groundwater quality, but also a sustainable water resource practice. It could also represent a risk for public health, however, if the process performance is not maintained. In light of this fact, it is recommended to closely monitor the treatment efficiency.

The ecological, social, and economic benefits of the projects recommended by the master plan can be grouped in the following main themes:

- Provision of public services with increased quality
- Reduction of current negative impacts to the soils, subsurface, aquifers, and ocean water
- Benefits to the land and aquatic ecosystems
- Sustainable water management
- Promotion of sustainable development

All projects to be implemented as a result of the master plan will be subject to further environmental review before their implementation. If impacts are determined, mitigation measures will need to be defined once the technical details are known under the facilities plan phase of each project.

13.2 Environmental Assessment

The Environmental Assessment (EA) prepared for the master plan was developed in accordance with the National Environmental Policy Act (NEPA). The EA provides a programmatic level of evaluation for the proposed master plan, based on the conceptual nature of the water and wastewater systems described therein. The EA addresses environmental effects that may occur within the U.S. as a result of the construction and operation of the proposed systems (i.e., transboundary effects).

The EA begins with a compilation of the general project information and includes descriptions of the proposed federal action to be taken, the environmental assessment process, the scope of the this EA, and the purpose and need for the project. Additionally, it provides general information of the existing conditions in the project area, including project location, existing community structure, described in terms of both population and land use, and existing infrastructure in place for both the potable water system and the wastewater disposal system.

A detailed description of the three alternatives short-listed from Section 12 of the master plan (Alternatives FB, FE, and GE) is provided in the EA. The main components of the planned improvements in the potable water supply and sanitation system are explained separately for each alternative. The EA also provides a description of the "No Action" alternative, listing the improvements in the water and wastewater systems that will occur regardless of the master plan.

The next portion of the EA provides an assessment of the current environmental conditions in the project area, which are broken down by subtopic. The subtopics reviewed include air, surface water (for fresh and marine waters), ground water, biological resources, and noise conditions. For each subtopic, the potential areas in the U.S. that may be affected by project construction and/or operations and maintenance are described, followed by an overview of the existing conditions.

Following the discussion of current environmental conditions, the EA gives an overview of the environmental consequences that may occur as a result of project construction and/or operations and maintenance for each alternative (including "No Action"). Similar to the previous section of the EA, consequences are listed by subtopic (air, surface water, groundwater, biological resources, and noise). Additionally, a discussion of indirect and cumulative impacts, and any necessary mitigation measures to reduce the significance of potential impacts is also provided. The important findings of the EA are summarized below.

Findings of EA

In general, the majority of infrastructure proposed in the Master Plan is not located within close enough proximity of the international border to have potentially significant impacts on U.S. environmental resources, both in terms of construction and operational activities. The main exceptions to this are the construction and operation of the effluent pipeline from the Alamar plant and the La Morita and Monte de Los Olivos plants that will connect to the South Bay Land Outfall, and coastal wastewater discharges in Mexico.

Construction of the effluent pipeline could potentially cause impacts on air quality in the U.S., however, these effects would be localized and short-term and are not anticipated to be significant. The proposed construction corridor is anticipated to be approximately 0.92 acres (0.37 hectares), which is less than the NPDES Storm Water Program General Construction Permit requirements for a small construction activity area. Based on this and the development of construction plans and specifications that

include a storm water pollution prevention plan (SWPP) with best management practices (BMPs), no significant surface water quality impacts are anticipated to occur. The construction corridor has been characterized as non-residential, disturbed, and developed. As such, impacts on biological resources and impacts due to noise levels are not anticipated. Previous cultural resource investigations in the area did not find any significant archeological resources. An alignment-specific cultural resources investigation will be performed in conjunction with more-detailed engineering and refinement of the pipeline route, if the project is implemented.

An ocean water quality modeling analysis was performed to determine if discharge of master plan effluent into the Pacific Ocean via the South Bay Ocean Outfall (SBOO) would be in compliance with the California Ocean Plan (COP) water quality criteria for sedimentation, turbidity, dissolved oxygen (D.O.), oil and grease, pH, coliform, and COP Table B constituents (various pollutants). Results of ocean model indicate that no significant impacts to ocean water quality are expected from effluent disposal through the SBOO.

Since coastal discharges in Mexico would be at shallower depths than the ocean outfall discharge point, there is a potential for transboundary impacts. However, this is not anticipated due to the dilution that would occur between the discharge points and the U.S. border.

In summary, EPA has determined that implementation of the Master Plan is not predicted to have a significant effect on U.S. environmental resources. EPA has made a preliminary determination of a Finding of No Significant Impact (FONSI). However, additional, more focused environmental evaluations may be required for the specific projects envisioned within the Master Plan, as those projects are implemented.